Missouri Department of Natural Resources

PUBLIC NOTICE

DRAFT MISSOURI STATE OPERATING PERMIT

DATE: July 28, 2006

In accordance with the state Clean Water Law, Chapter 644, RSMo, Clean Water Commission regulation 10 CSR 20-6.010, and the federal Clean Water Act, the applicants listed herein have applied for authorization to either discharge to waters of the state or to operate a no-discharge wastewater treatment facility. The proposed permits for these operations are consistent with applicable water quality standards, effluent standards and/or treatment requirements or suitable timetables to meet these requirements (see 10 CSR 20-7.015 and 7.031). All permits will be issued for a period of five years, unless noted otherwise in the Public Notice for that discharge.

On the basis of preliminary staff review and the application of applicable standards and regulations, the Missouri Department of Natural Resources (MDNR), as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions. The proposed determinations are tentative pending public comment.

Persons wishing to comment on the proposed permit conditions are invited to submit them in writing to the Department of Natural Resources, St. Louis Regional Office, 7545 South Lindbergh, Suite 210, St. Louis, Missouri 63125, ATTN: Thomas M. Siegel, Chief, Permits and Engineering. Please include the permit number in all comment letters.

Comments should be confined to the issues relating to the proposed action and permit(s) and the effect on water quality. The MDNR may not consider as relevant comments or objections to a permit based on issues outside the authority of the Clean Water Commission, (see Curdt v. Mo. Clean Water Commission, 586 S.W.2d 58 Mo. App. 1979).

All comments must be postmarked by August 27, 2006 or received in our office by 5:00 p.m. on August 30, 2006. The requirement of a signed document makes it impossible to accept email comments for consideration at this time. Comments will be considered in the formulation of all final determinations regarding the applications. If response to this notice indicates significant public interest, a public meeting or hearing may be held after due notice for the purpose of receiving public comment on the proposed permit or determination. Public hearings and/or issuance of the permit will be conducted or processed according to 10 CSR 20-6.020.

Copies of all draft permits and other information including copies of applicable regulations are available for inspection and copying at DNR's website, http://www.dnr.mo.gov/env/wpp/wpcp-pn.htm, or at the Department of Natural Resources, St. Louis Regional Office, 7545 S. Lindbergh, Suite 210, St. Louis, Missouri 63125, between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday.

Public Notice Date: July 28, 2006
Permit Number: MO-0132853
St. Louis Regional Office

FACILITY NAME AND ADDRESS	NAME AND ADDRESS OF OWNER
Estates at Deer Hollow Subdivision 18770 Hwy 100 Wildwood, MO 63069	Deer Hollow Homeowners Association 3724 Bear Tooth Lane Wildwood, MO 63069
RECEIVING STREAM & LEGAL DESCRIPTION	**TYPE OF DISCHARGE**
No-Discharge Unnamed Tributary to Fox Creek(U) NW ¼, NE ¼, NW ¼, Sec. 20, T44N, R3E, St. Louis County	Domestic (new), no-discharge

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0132853
Owner:	Deer Hollow Homeowners Association
Address:	3724 Bear Tooth Lane, Wildwood, MO 63069
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Estates at Deer Hollow
Facility Address:	18770 Hwy 100, Wildwood, MO 63069
Legal Description:	NW ¼, NW ¼, Sec. 24, T41N, R4E, Jefferson County
Receiving Stream:	Unnamed Tributary to Fox Creek (U)(losing)
First Classified Stream and ID:	Fox Creek (C)(01842)
USGS Basin & Sub-watershed No.:	(07140101-150005)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Outfall #001 – Subdivision - SIC #4952
STEP collection/flow equalization/Ecopod fixed media treatment/sludge contract hauler/dosing tank/subsurface drip irrigation system.
Design population equivalent is 99.
Design flow is 7500 GPD.
Design sludge production is 2.7 dry tons/year.

See page 2 for land disposal information.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

Effective Date

Doyle Childers, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

Expiration Date

Mike Struckhoff, Director, St. Louis Regional Office

FACILITY DESCRIPTION (continued)

Outfall #001 – Land Application System

Irrigation volume per year:	2,737,000 gallons
Primary irrigation area:	0.71 acre, (31,000 square feet)
Reserve irrigation area:	same
Application rates per acre:	141 inches/year
Field slopes:	5 percent
Equipment type:	Drip irrigation
Vegetation:	Combination warm/cold season grasses
Application rate is based on:	Soil characteristics

Outfall #002 – Monitoring Well M-1

Well location latitude/longitude:	38325x.x/-9042xx.x
Well location descriptive:	north side of irrigation field
Well depth:	48 inches

Outfall #003 – Monitoring Well M-2

Well location latitude/longitude:	30325x.x/-9042xx.x
Well location descriptive:	south side of irrigation field
Well depth:	48 inches

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

(OUTFALL NUMBER AND EFFLUENT PARAMETERS)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001 – Water to Irrigation Field						
Flow	GPD	*		*	once/ month	24 hour estimate
Total Kjeldahl Nitrogen as N	mg/L	*		*	once/quarter**	grab
Nitrate plus Nitrite as N	mg/L	*		*	once/quarter**	grab
pH	SU	*		*	once/quarter**	grab
Outfall #002 and Outfall #003 All Monitoring Wells (Note 1)						
Total Kjeldahl Nitrogen as N	mg/L	*		*	once/quarter**	grab
Nitrate plus Nitrite as N	mg/L	10.0		10.0	once/quarter**	grab
pH	SU	***		***	once/quarter**	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE _____. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Continued)

* Monitoring requirement only.

** Sample once per quarter in the months of January, April, July, and October.

* * * pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0 to 9.0 pH units

Note 1 – Report as "no water present" if there is no water to sample in the monitoring well. A sample must be collected if water is present in the monitoring well at any time during the report period.

C. SPECIAL CONDITIONS

1. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
   a. Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
   b. Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
   c. Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
   d. Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
   e. There shall be no significant human health hazard from incidental contact with the water
   f. There shall be no acute toxicity to livestock or wildlife watering;
   g. Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
   h. Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

2. This permit may be reopened and modified, or alternatively revoked and reissued, to:
   a. Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
   b. contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
   c. controls any pollutant not limited in the permit.
   d. Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

3. Changes in Discharges of Toxic Substances. The permittee shall notify the Director as soon as it knows or has reason to believe:
   a. That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
      (1) One hundred micrograms per liter (100 µg/L);
      (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
      (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
      (4) The level established in Part A of the permit by the Director.
   b. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

D. SPECIAL CONDITIONS (Continued)

3. Prior to wastewater treatment facility or irrigation field operation, the permittee shall develop an irrigation field management plan. This plan shall be submitted to the department prior to issuance of this permit. Once approved the plan shall be implemented. This plan shall contain the following elements:

   a. Location and monitoring frequency of lysimeters to monitor soil water for nitrate nitrogen. This will aid in determining nutrient movement through the soil, serve as an early warning system for potential nitrate nitrogen break through into surface water or groundwater, and will aid in resizing the irrigation field for this and subsequent phases.

   b. Location and monitoring frequency of piezometers. This will aid in determining the groundwater level, serve as an early warning system for potential groundwater mounding problems, and will aid in resizing the irrigation field for this and subsequent phases.

   c. Application rates and schedules for soil amendments based on soil tests for both the warm season and cool season grass plots.

   d. Initial and annual soil testing of phosphorus and nitrogen in the soil layer below the bottom of the root zone down to the water saturation level for the different soil types in both the warm season and cool season grass plots. This will aid in determining nitrogen movement through the soil, serve as an early warning system for nitrogen break through into surface water or groundwater, and will aid in resizing the irrigation field for this and subsequent phases.

   e. Seasonal irrigation schedules for both the warm season and cool season grass plots, including allowances for field drying prior to harvest and allowances for hay harvesting, including mowing / conditioning, hay drying, raking, baling, and bale removal.

   f. Periodic (minimum once each business day) measurement of precipitation.

   g. Measurement of weight of both warm season and cool season hay removed annually with analysis (or estimate if more appropriate) of nitrogen, phosphorus, and potassium (as well as minor nutrients if appropriate) removed from the irrigation plots in the hay.

   h. Annual report submitted to the department that analyzes trends in nitrogen movement though the soil, soil water, groundwater, and surface water and includes a material balance for water, phosphorus, and nitrogen considering wastewater irrigated, precipitation, soil water and nutrients stored in the root zone, soil water and nutrients stored below the root zone, groundwater movement, surface water movement, evaporation, transpiration, and hay harvested.